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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/232,265	01/19/1999	JARNO KNUUTILA	460-008437-U	2021

7590 12/19/2002
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EXAMINER

TOPPIN, CATHERINE J

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 12/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/232,265

Applicant(s)

KNUUTILA ET AL. *DD*

Examiner

Catherine Toppin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/19/99.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: The phrase "camera module (1)" in claim 1 line 5 should be omitted for a clearer understanding of the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 4, 5, 7, 8, and 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Endsley et al. (US5841471). As for claim 1, Endsley teaches a method for transferring image information from a camera module (digital camera) to an electronic device (host computer), in which an image is formed by an image sensor (CCD) comprised of pixels. The analog signal captured is converted into digital image information via an A/D converter. (See column 1, lines 51-67.) Digital image information is then transferred in serial form via a universal serial bus interface (USB) to the electronic device (host computer). (See column 2, lines 49-58.) Endsley also teaches that the electronic device (host computer) controls the transfer of image information. (See column 4, lines 5-7.) As for claims 7 and 13, the camera module and mobile station of claims 7 and 13 respectively are not substantively distinct from the method of claim 1, and are also rejected for reasons discussed above.

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4. As for claims **2, 8 and 14**, Endsley teaches that the quantity of image information transferred can be adjusted, as both still motion images can be transferred. As for claims **4 and 10**, Endsley discloses a digital camera connected to an electronic device, capable of producing both high resolution and reduced resolution images. (See column 2, lines 64-65.) As for claims **5, 11, and 12**, the examiner interprets means for undersampling image data as inherent in adjustment of the resolution. The examiner also interprets resolution adjustment is another means of adjusting the quantity of information transferred. Furthermore, figure 6 of Endsley discloses means for reading out undersampled (subsampling) data into the computer via the USB.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims **3 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Endsley in view of Roberts et al. (US6094219). As for claims **3 and 9**, Endsley discloses a method for transferring images and camera module as discussed above including means for adjusting the quantity of information transferred, but is silent on the issue of adjusting the quantity of information transferred by adjusting the conversion accuracy of the analog/digital conversion. Roberts, however teaches the use of a variable selectable compression ratio of a digital image frame prior to storage. (See column 4, lines 37-59.) The examiner interprets compressing the digital image information after analog to digital conversion as equivalent to adjusting the accuracy of the analog to digital conversion in that both methods result in an decrease or increase

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in the amount of information used to represent an analog image in digital form. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the means of adjusting of the conversion accuracy of the analog/digital conversion of Roberts in the camera module and method of Endsley as an alternate means of controlling the adjustment of the amount of information transferred from the camera to the electronic device (host computer).

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Endsley. The examiner takes Official Notice that it is well known in the art to restore the resolution of an image by interpolation of the received image information. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention the restore the resolution of an image by interpolation as an alternate means of image resolution restoration in the method of Endsley in order to enable increased storage of image data while maintaining image quality.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Toppin whose telephone number is (703) 305-8144. The examiner can normally be reached on Monday through Friday 8:00 am. - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Customer Service whose telephone number is (703) 306-0377.

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CJT

December 10, 2002



WENDY R. GARBER
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